Remarks

The objection to the abstract has been avoided by the amendment canceling the word "comprising".

Claims 1 to 37 are pending. Claims 24-30 and 34-37 are allowed. Claims 1-3, 7-10, 13-17, 20-22, and 31-33 have been amended. Claims 6, 12, and 23 have been cancelled. Entry of the above amendments and reconsideration of the application are requested.

Claims 2-3, 7-11, 13-21 and 23 have been objected to as dependent upon a rejected base claim but were said to be allowable if rewritten in independent form. The above amendments have placed claims 2-3, 7-11, 13-21 and 22 in allowable form. Claim 2 as amended incorporates the limitations of claim 1, and claim 3 depends from claim 2. Claims 7 – 10 and 17 now depend from claim 2, claim 11 depends from claim 10, and claims 18 – 19 depend from claim 17. The limitations of claim 12 have been incorporated into claim 13, and claims 14-16 and 20 depend from claim 13. Claim 21 has been amended to independent form incorporating the limitations from claim 1. The limitations of claim 23 have been incorporated into claim 22.

§ 103 Rejections

Claims 1, 4-6, 12, 22, and 31-32 stand rejected under 35 USC § 103(a) as being unpatentable over Parker (US 5,593,786). This rejection is: traversed as to claims 1, 4, 5, 31 and 32; rendered moot as to cancelled claims 6 and 12, and also as to amended claim 22; and avoided as to claims 31-32.

Parker is a patent on laminated safety glass. It states that support layer 12 and adhesive layers 13 are matched as closely as possible (abstract, column 2, ll. 35-42, col. 7, ll. 50-52), but it does not disclose a multilayer adhesive wherein the indices of refraction of the layers of the multilayer adhesive increase from an optical layer having a lower index of refraction to an optical layer having a higher index of refraction (as required by claims 1 and 31).

At Office Action page 3, the Examiner has said that it would have been obvious to place the adhesive layers with refractive indices in ascending order, starting from the glass layer with the smallest refractive index, referring to two cases (*In re Antonie*, 195 USPQ 6 (CCPA 1977 and *In re Boesch* 205 USPQ 216 (CCPA 1980)) for the proposition that discovering an optimum value of a result effective variable involves only routine skill. This assertion by the Examiner is specifically traversed. In *Antonie*, the inventor won, and the CCPA overruled the Board of Appeals based on the failure of the Board to consider the invention as whole and the improper use of the obvious to try standard. In *Boesch*, the Board was affirmed because the applicant failed to establish (by means of an affidavit) that the selection of alloy components according to his claim limits was commensurate with achieving his alleged unexpected or beneficial result (see 205 USPQ 220-221).

Patentability of the rejected claims does not depend on unexpected results as it did in *Boesch*. The claimed multilayer optical composite is not a discovery of an optimum value in a known process shown by the cited prior art. The presently claimed invention is the combination of a first optical layer (having refractive index n_1) and another (ith) optical layer (having refractive index n_i greater than n_1) with a multilayer adhesive between the two optical layers wherein the layers of the multilayer adhesive have indices of refraction which increase between the first optical layer and the ith layer, in order of position from the first layer.

There is no reason for such a requirement in Parker, because in the safety glass Parker discloses, the two outer parts bonded together in the glass structure are the same material, i.e., glass sheets 10. The sheets 10 have the same refractive index, since they are the same material. There is no need in Parker to transition from a low refractive index material to a high refractive index material, which is the function of the present invention.

There is no sequence of adhesive layers taught (from low refractive index to high refractive index) in Parker. The adhesive layers 13 in Parker's composite interlayer 11 are the same composition; so, there is no gradient or monotonic change in refractive index from one side to the other. He is trying to match the adhesive refractive index with the refractive index of support layer 12 as closely as possible, see col. 6, ll. 20-32 and 46-54, and Examples 1, 2 and 4.

Therefore, contrary to the Examiner's statement at Office Action p. 3, one would not be motivated by the disclosure of Parker to arrange adhesive layers in order of increasing refractive index.

Claim 31, as amended, requires that the indices of refraction of the intermediate adhesive layers increase monotonically from n_i to n_i. With this limitation, the same rationale applies to the methods of claims 31 and 32 as was applied to claim 1 above with regard to Parker. Parker teaches one to match the refractive index of adhesive layers 13 on either side of support layer 12 to the refractive index of the support layer to eliminate optical distortion in safety glass. This does not render the method of amended claim 31 obvious.

Claim 33 has been rejected under 35 U.S.C. 103(a) as obvious over Parker in view of Hitschmann European Patent Publication 942054. This rejection is traversed.

The same differences pointed out above with regard to Parker apply to this rejection. The Examiner has cited Hitschmann as basis for the obviousness of using a pressure sensitive adhesive (psa) for the optical adhesive layers 13 of Parker. However, there are reasons, in addition to those given above regarding Parker, to reject this reasoning. Hitschmann teaches the combination of psa and structural hybrid adhesive layer (3). He requires that (if there is more than one psa layer) the psa layers not be in contact with each other (see abstract, p. 2, l. 58, p. 7, ll. 55-56 and Fig. 3). Rejected claim 33 requires that psa layers be laminated together to form a multilayer optical adhesive. Hitschmann and claim 33 are mutually exclusive. Even if it were obvious to use psa as the adhesive layers 13 of Parker, that would not overcome the fact that Parker's layers 13 are the same, and there is no sequence of adhesive layer refractive index from low to high as one goes through the thickness of Parker's composite interlayer 11.

Because claims 2, 13, and 21 have been amended to independent form, a cover letter authorizing charging the appropriate fees for additional independent claims to Deposit Account No. 13-3723 accompanies this Amendment.

In view of the above discussion, it is respectfully submitted that claims 1-5, 7-11, 13-22, and 24-37, as amended, are in condition for allowance. Withdrawal of the rejections under 35 U.S.C. 103(a) are requested and a notification of allowability is respectfully solicited. If any issues or questions remain the resolution of which the Examiner feels would be advanced by a

conference with Applicants' attorney, he is invited to contact such attorney at the telephone number noted below.

Respectfully submitted,

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